

PUBLIC HEALTH REPORTS

From Yellow Fever to International Health

Public Health Reports had its modest beginning in a one-page "Bulletin" issued on July 13, 1878, by the Supervising Surgeon-General of the Marine-Hospital Service.

Two months earlier, Congress, hoping to fend from American shores the twin scourges of cholera and yellow fever, had passed the first National Quarantine Act. This law required American consuls to file reports on sanitary conditions abroad and on vessels leaving infected foreign ports bound for the United States. From

these reports and "other pertinent information" the Surgeon-General was to prepare weekly abstracts for transmission to medical officers of the Marine-Hospital Service, to collectors of customs, and to the State and municipal health authorities in the United States.

The early bulletins, though brief, were grim enough to arrest any reader's attention. Bulletin No. 3 (July 27, 1878) led off with the ominous words, "About the 12th instant, cases of yellow fever began to occur in New Orleans." Thus began the stark record of the great Mississippi Valley epidemic that claimed 20,000 lives. Upstream sped the disease, while authorities

BULLETINS.

No. 1.

OFFICE SURGEON-GENERAL, U. S. M.-H. S.,
Washington, July 13, 1878.

The following information is furnished by the Surgeon-General of the Marine-Hospital Service to State and municipal officers of health, &c., in accordance with the requirements of the National Quarantine act:

Havana, Cuba.—From 20 to 34 deaths from yellow-fever, and more from small-pox, are now occurring weekly in the city of Havana.

Cardenas and Sagua la Grande, Cuba.—Good health in bay and city.

Matanzas, Cuba.—The captain and four of the crew of the bark "Marie Donau" were attacked with yellow-fever on the 3d instant, in the harbor of Matanzas. Only one other case of fever has occurred in the shipping of that port. Sporadic cases are reported in the city, but the disease is of a mild character.

Key West, Fla.—Two cases of yellow-fever have occurred in the harbor of Key West, one on the Norwegian ship "Marie Frederike," and one on the Spanish bark "Doña Talefora." The city is reported healthy.

Two of the British vessels which recently conveyed native Indian troops to Malta, had cholera on board during the passage from India. On one of the vessels nine cases and four deaths, and on the other two deaths, occurred before the vessel passed the Suez canal. The vessels were allowed to pass the canal without detention, though it is customary to send a vessel, on which a single case of cholera has occurred during the voyage, back to Thor, 120 miles, there to remain two weeks or more in quarantine.

JNO. M. WOODWORTH,
Surgeon-General, U. S. M.-H. S.

1881 Reprint of the First Bulletin

charge of the Marine-Hospital Service at Vicksburg—where 20 deaths had just been recorded from yellow fever in 24 hours—telegraphed, "I am sick; impossible to procure accurate data." The next *Bulletin* recorded his death.

Yellow fever . . . the Marine-Hospital Service . . . a feeble quarantine act . . . the very terms and conditions of that time recall the sweeping progress in public health since 1878. That progress can be symbolized by the transformation of the *Bulletin*, with its meager abstracts tracing the course of seemingly invincible diseases, to the new *Public Health Reports*, a forum for the thousands of

tried hopefully but futilely to kill it with carbolic acid—upriver to Vicksburg, to Port Gibson, to Grenada, to Louisville and Cincinnati and as far as Pittsburgh, where a dying steamboatman was carried ashore from the *John D. Porter*, the ill-fated sternwheeler which had left an infected wake for one thousand miles.

The tragic story is tersely told in volume I of the *Bulletins of the Public Health*, and between its laconic lines may be read both terror and heroism. In August, Dr. Booth, in

The New Public Health Reports

The new *Public Health Reports* carries forward a record of service extending from 1878.

The amalgamation, in the present journal, of several other Public Health Service technical periodicals represents, we believe, a strengthening and revitalizing of the *Reports*.

It is, moreover, an attempt to reflect the changing—and broadening—concepts of public health which have been emerging during the past decade.

In 1878, when *Public Health Reports* was founded, its primary function was to carry out the Service's responsibility for compiling and publishing data useful in combating epidemics.

Today, public health responsibility embraces such varied and complex fields as basic research, the problems of the aging, rehabilitation, and hospital construction—in addition to the control of epidemic diseases and the fight against the venereal diseases and tuberculosis.

It is our hope that the new *Public Health Reports* will be a useful and challenging source of information for all who are working in this field. The new monthly journal will focus primarily on public health practice, health service administration, and on research in these fields. It will be concerned largely with those aspects of public health which touch upon the work of the official agencies.

We hope that, as time goes on, it will become a real forum for the exchange of professional ideas and a stimulus toward new and better concepts of public health practice.

To aid in the development of the editorial standards and policies, a Board of Editors has been named. The board is made up of individuals of experience and wisdom in various public health fields. We shall rely heavily upon them and upon our editorial consultants, to whom will fall the task of reviewing manuscripts. I am deeply appreciative of their willingness to aid us in the development of the journal.

The pages of the new *Public Health Reports*, like those of its predecessors, will be open to responsible authors, outside as well as within the Federal service, in the United States as well as abroad.

With this issue—No. 1 of volume 67—*Public Health Reports* turns another page in its long career. Its usefulness, as in the past, will depend upon how well it meets the needs of its readers.

We are relying upon you, as well as upon our Board of Editors and the staff, for contributions and for the kind of constructive criticism which is essential to the growth and development of any publication, new or old.

LEONARD A. SCHEELE, M. D.
Surgeon General

professional and technical workers who are marking up steady advances in a concerted drive to improve the Nation's health. Through the 65 intervening volumes runs the record of the public health movement in the United States—a record of its frustrations and dead ends, of its many victories, of its enduring problems.

Epidemics and Quarantines

The *Bulletins of the Public Health* expired after 46 numbers, leaving a clear field for the short-lived National Board of Health and its quarantine reports. Publication was resumed in 1887, however, when No. 47 came off the press as the *Weekly Abstract of Sanitary Reports*.

The Division of Sanitary Reports and Statistics was responsible for the *Abstract*, and a special officer was detailed to supervise its editing and mailing. Still a bare chronicle of only a few pages, it reached 1,800 readers and was—in its editor's words—"greatly appreciated not only by quarantine officers, but steamship companies, merchants, and the press."

In recording the prevalence of communicable diseases, and little else, the *Abstract* faithfully reflected the public health functions as carried out then by the Marine-Hospital Service. The quarantine powers and duties of the Service, both interstate and foreign, were enlarged by Congressional acts of 1890 and 1893—none too soon, for there was a cholera pandemic in the

latter year, and yellow fever struck in Georgia. The Service was strengthened, too, by the creation of the Commissioned Corps in 1889, providing a mobile force of doctors vested with Federal authority.

Medical research had not yet been officially delegated to the Service, but Surgeon J. J. Kinyoun in 1887 opened a one-room bacteriological laboratory in the Staten Island Marine Hospital. There its founder, after the Service in 1890 was ordered to conduct medical examinations for the Immigration Service, first detected the cholera organism among immigrants. The modest research establishment was moved to Washington in 1891, where it became known as the Hygienic Laboratory.

Kinyoun's name looms large in the volumes of the *Abstract*. He wrote its first sizable article—a 31-page essay on the Louisiana State Board of Health and its methods (following which the publication subsided to its customary four pages). His observations on Roux's serum therapy for diphtheria, at the International Congress of Hygiene and Demography in Budapest in 1894, were considered so noteworthy that they were published in the *Abstract* twice within a month.

The *Abstract* became *Public Health Reports* in 1896, but other than the title banner there was little change for several years in either format or content. Epidemics were still the major preoccupation, as public health workers applied their heritage from Pasteur, Koch, and Theobald Smith in detection and control of disease. The *Reports* indicate that an especially close watch was kept throughout the world on plague, smallpox, typhus, yellow fever, and cholera.

Near the turn of the century, yellow fever more than any other disease absorbed the energies of public health personnel. By reason of its official duties, the Marine-Hospital Service was concerned principally with the exacting task of quarantine—a task vastly expanded in magnitude by the Spanish-American War and troop movements to and from yellow fever areas. In the December 22, 1899, issue of *Public Health Reports* appeared the conclusions reached on yellow fever by the Service's investigating commission of medical officers. Their findings, the commission declared, "verify those

of Sanarelli in his discovery of the *Bacillus icteroides*. They further demonstrate that this disease is received into the human system through the respiratory tract." Yet it was Surgeon Henry R. Carter of the Service who first described the extrinsic incubation period of yellow fever, a study which Walter Reed credited with pointing the way to his own epochal discovery of mosquito transmission. The same Carter was to contribute many valuable malaria studies to the *Reports* in the years that followed.

The Broadening Base of Public Health

The first two decades of the new century, culminating in the demands of World War I, saw the modern public health movement in formation. A Congressional act of 1902 changed the Marine-Hospital Service into the United States Public Health and Marine-Hospital Service, and broader responsibilities went with the new title. The Service was given regulatory control over the interstate sale of important biological products. In 1901, Congress had endowed the Service with authority and funds for "the investigation of infectious and contagious diseases and matters pertaining to the public health." From this halfway house, an advance to full-scale field and laboratory investigation was made in 1912, when what now became the Public Health Service was empowered to study not only the diseases of man but also the "conditions influencing the propagation and spread thereof," including sanitation, sewage, and water pollution.

The broadened scope of Service activities soon gave *Public Health Reports* an abundance of important and sometimes dramatic new material for publication. Packed into the fattening volumes, along with statistical reports and tables, were the observations of medical scientists and epidemiologists who were relentlessly whittling down the killing and crippling power of communicable diseases. Here, for example, were Stiles' summaries of his war against hookworm; accounts by Goldberger and Anderson of their investigations into the etiology and prevention of typhus fever; malaria control discussions by Carter and the sanitary engineer Le Prince. Here, in 1906, appeared King's report

on the experimental transmission of Rocky Mountain spotted fever by means of the tick, first in a lengthy series in which Public Health Service researchers pinpointed facts about that disease and immunization against it. Here, too, were recorded the labors of those tireless epidemiologists, Frost and Lumsden, whose work dramatized for countless communities the direct link between environmental sanitation and typhoid.

No chapter in the history of *Public Health Reports* is more fascinating than that which unraveled the mystery of pellagra. In the years before World War I, this disease was recognized as one of the Nation's great public health problems, but its etiology still baffled medical men. In the *Reports* for June 26, 1914, Goldberger, in three and one-half modest pages, advanced the suggestion that pellagra was due to dietary deficiency; and he proceeded to prove his hypothesis in subsequent institutional experiments. His work was not only decisive for the treatment and prevention of a centuries-old disease, it also convinced medical science that bacteriological considerations were not the be-all and end-all of research, and it opened the whole nutritional field which was to prove so fruitful of results.

In the *Reports* of these formative years, too, one may read the signs of a developing Federal-State-local structure for the operation of public health programs. One indication of this cooperative movement was the publication of municipal ordinances, State legislation, and court decisions affecting public health. In 1915 a model State law for morbidity reports was printed.

Along with these new features, statistics remained a vital element of *Public Health Reports*. The reason for these columns of figures was convincingly emphasized as early as 1913, when the weekly report on the prevalence of disease for the first time led off with the now-familiar admonition: "No health department; State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring."

Public Health Comes of Age

World War I made strenuous demands on the Public Health Service and local health agencies.

The *Reports* reflected the conviction that physical fitness, for civilians as well as for troops, was a duty owed the Nation. This concern was strikingly shown in the increased number of articles on industrial health. The most important "sanitary problem" facing the United States, however, was the control of venereal disease. Foreshadowing the campaign of the 1930's, the Public Health Service, through its newly created Venereal Disease Division, cooperated with the States in a \$1,000,000 program of prevention and control, one of its aims being the education of the public to "permit the free and frank discussion of this important question without offense to modesty."

The influenza epidemic was the regular front-page topic in 1918-19. The *Reports* noted on October 4, 1918, that the disease was spreading rapidly over the country. Soon the Service was besieged by correspondents offering "sure cures," which ranged from patent medicines to "harmonic vibrations." The epidemic left one useful legacy. It showed "better than volumes of reasoned arguments," said *Public Health Reports*, the necessity for a reserve corps of commissioned public health officers—and such a corps was created by Congressional resolution in 1918.

While the war stimulated public health organization and activity, it also revealed health conditions which were in some respects deplorable. The Service's response to this challenge was a comprehensive program, outlined in *Public Health Reports* for December 5, 1919, embracing industrial control of malaria, tuberculosis and venereal disease, improved morbidity reports, and health education.

The Public Health Service, meanwhile, was developing the role it would play as catalyst and guide for State and local programs. In the *Reports* of the early 1920's, Sydenstricker presented significant findings in the monumental Hagerstown, Md., survey of health and socioeconomic status, a landmark in the study of medical care. And before the close of the decade, studies of local health work began to appear.

Medical research, understandably, continued to command many pages of the *Reports*. As microbiological investigations were carried forward, the names of novel or unusual diseases

Another and a tragically different stimulus to expansion was World War II, in which the contributions of the Public Health Service ranged from an intensified venereal disease control program to the recruitment of a Cadet Nurse Corps. On the industrial front, the Service developed methods which reduced TNT poisoning. Fighting men benefited by new or improved vaccines for typhus, yellow fever, and plague, by antimalarial drugs, by the Service's studies on the effects of high-altitude flying, and by the mass processing of blood to plasma in the Biologics Control Laboratory.

Among the major postwar developments was the establishment of the Environmental Health Center in Cincinnati and of the Communicable Disease Center in Atlanta, each a national headquarters for intelligence, planning, and research in its field. The Communicable Disease Center grew out of the program launched in 1942 for Malaria Control in War Areas. The attack on malaria was chronicled by its own publication, the *MCWA Field Bulletin*, which gave way in 1946 to the *CDC Bulletin*. This periodical has featured articles by scientists in the forefront of the drive against communicable diseases, as well as reports of operational and research programs in the Communicable Disease Center.

In much the same way, the postwar tuberculosis control program and the creation of the Tuberculosis Control Division in the Service gave rise to its own publication, the Tuberculo-

sis Control Issue of *Public Health Reports*. This special monthly issue began in 1945, 2 years after editorial direction of the *Reports* was assigned to the chief of the Division of Public Health Methods in the Office of the Surgeon General. Contributions, from domestic and foreign sources, have been notable stimuli to a renewed attack on an old killer.

The amalgamation of these three technical periodicals of the Public Health Service with the weekly *Reports* to form a "new" monthly *Public Health Reports* reflects a growing realization of the practical interdependence of public health activities. The merger is a natural development, moreover, at a time when the great problems and even greater opportunities in public health require an integrated and flexible Public Health Service. Such terms as ACTH and cortisone, arctic health and world health, fluoridation, biological warfare, and radiological protection are reminders of how wide-ranging and adaptable the Public Health Service must be.

The Public Health Service has come a long way since that day in 1878 when the dying Dr. Booth sent his pathetic telegram, "I am sick; impossible to procure accurate data." Yet Booth is part of an enduring tradition, for the assembling and dissemination of data is the very basis of effective public health work. That tradition the new *Public Health Reports* will keep alive.

Scheduled For Early Publication

Aging: Its Implications for Public Health.—An over-view of the problem, by Clark Tibbitts, plus briefs of more than two dozen papers presented at the Second International Gerontological Congress.

Definitions and Functions: The Health Department's Dilemma—An examination of the changing role and expanding responsibilities of the modern public health department, by Joseph W. Mountin.

Research for Improved Nursing Practice—A discussion of current needs and developments in a field that requires increased attention, by Lucile Petry, Margaret Arnstein, and Pearl McIver.

50th Conference of State and Territorial Health Officers.—Shortened texts and reports of the major papers presented before the health, hospital planning and construction, and mental health authorities of the Nation.

Research in the Epidemiology of Mental Illness—A review of current projects and emerging needs, by Robert H. Felix and Morton Kramer.